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Application No. 09/196,680
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REMARKS

The Office Action dated November 2, 2005 has been reviewed, and the comments of the U.S. Patent Office have been considered. This amendment is being submitted pursuant to 37 CFR § 41.33(a), after the filing of the notice of appeal dated February 2, 2006, but prior to the date of filing a brief. Claims 55-61 stand withdrawn from consideration and newly added claims 64-74 are presented for consideration. Accordingly, claims 1-11, 14, 15, 20-74 are pending.

Claims 1-11, 14, 15, 20-54 and 62 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,296,816 to Fischer ("Fischer") in view of U.S. Patent No. 5,810,263 to Tramm ("Tramm"). Claim 63 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Fischer in view of Tramm, U.S. Statutory Invention Registration H121 to Pieczykolan ("Pieczykolan"), and U.S. Patent No. 5,727,737 to Bosio et al. ("Bosio"). Applicants again respectfully traverse the rejection of these claims as being obvious because there is no motivation or suggestion to modify or combine Fischer with Tramm. In addition, Fischer even in view of Tramm, fails to teach or suggest specified features of the claimed invention, i.e., the claimed deflector of the sprinkler. Because there is no motivation or suggestion to combine Fischer and Tramm and because all of the claimed features are not taught by the combination, a *prima facie* case of obviousness cannot stand.

To support the obviousness rejection, the Examiner asserts throughout the Office Action that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the sprinkler of Fischer with the purported teachings of Tramm. The Examiner's proposed combination of references was made having apparently considered, yet finding unpersuasive, the Declaration of Michael A. Fischer. To discount the Declaration, the Examiner concludes that Mr. Fischer "is not a completely disinterested party" based upon the fact that Mr. Fischer is currently employed by the assignee. Applicants would like to note for the record that at the time the instant application was filed (the relevant time period for the obviousness analysis), Mr. Fischer was not an employee of the assignee. *See* Decl. M.A. Fischer at 6, para. 27. The applicants further remind the Examiner that Mr. Fischer made the declaration subject to Section 1001 of Title 18 of the United States Code. *See id.* at 8, para. 34. Applicants request that the Examiner reconsider the Declaration of Michael A. Fischer accordingly. In particular, contrary to the Examiner's assertion that one of ordinary skill, at the time the instant

invention was made, would have modified the sprinkler of Fischer with the teaching of Tramm, Mr. Fischer states that he (as one of more than ordinary skill in the art and inventor of the sprinkler of Fischer) would not know how to modify the sprinkler shown and described in Fischer with the teachings of Tramm to reach applicants' invention. Consequently, a person of ordinary skill would not have been suggested or motivated to modify the sprinkler shown and described in Fischer with the teaching of Tramm, as proposed by the Examiner, to reach the claimed invention as a whole so as to support a *prima facie* case of obviousness.

In addition to discounting the Declaration of Michael A. Fischer, the Examiner relies on a passage from Tramm as motivation for modifying the sprinkler of Fischer with the teachings of Tramm. However, regardless of whether Fischer and Tramm can be combined as the Examiner proposes, "[t]he mere fact that the references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." MPEP § 2143.01. The passage in Tramm upon which the Examiner relies states that "the concept of this invention can be applied to horizontal-type sprinklers specially listed for other protection areas, minimum flow rates, and/or locations and distances between the sprinklers when found suitable for such use by a listing acceptable to the authority having jurisdiction." However nothing in this passage suggests the desirability any of the specific combinations of Fischer and Tramm as proposed by the Examiner in rejecting the claims. Therefore, the cited passage of Tramm does not provide the requisite suggestion or motivation to modify Fischer with the teachings of Tramm to support an obviousness rejection.

In fact, Tramm seeks to distinguish itself from Fisher. Tramm cites Fischer as an illustrative horizontal-type sprinkler. *See* Tramm, col. 1, lines 35-43. Tramm describes typical horizontal-type sprinklers as having substantially horizontal flow confining elements in which the confining surface is located "downstream (forward)" of the deflector mounting boss. *See id.*, col. 1, lines 35-43; col. 3, lines 33-37. Tramm, in contrast, teaches a sprinkler having a deflector "rearward" of the deflector mounting boss to improve the over-all appearance of Tramm's sprinkler over "conventional technology horizontal-type sprinkler deflectors." *See id.*, col. 8, lines 13-23. In view of this difference or conflicting teaching between Tramm and Fischer, the Examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art in the obviousness analysis, considering the extent to which one might accurately discredit another. MPEP § 2143.01

Furthermore, regardless of whether or not the sprinkler of Fischer can be combined with the teaching of Tramm, their combination still fails to teach or suggest all the claimed features of applicants' invention in claims 1, 20, 24, 25, 42, 45-48, 50 and 63. As has previously been argued on the record by applicants, and which the Examiner has yet to refute, Fischer in view of Tramm fails to teach or suggest the following features: (1) a forward facing canopy, i.e. away from the outlet and towards a free end, as recited in claims 1, 20, 42, 45, and 63; (2) a generally flat canopy surface for a deflector, as recited in claims 24, 25, 46 and 50; and (3) a deflector that has only a single flow opening, as recited in claims 24, 47 and 48. Accordingly, the combination of Fischer and Tramm fails to teach or suggest applicants' invention as a whole.

Applicant respectfully reminds the Examiner that a prior art reference must be considered in its entirety, including portions that lead away from the claimed invention. MPEP § 2141.03 (VI). Where the claims of the instant application are directed to a sprinkler having a forward facing deflector, Tramm teaches away from the claimed invention. Tramm specifically teaches a deflector in which, "the substantially horizontal flow containing element 48 is substantially rearward of deflector mounting surface 25 of deflector mounting boss 26." *See* Tramm, col. 8, lines 13-16. According further to Tramm, as a result of the rearward deflector, "the over-all length of the horizontal-type sprinkler 10 is reduced, and it becomes less obtrusive, especially when mounted inside of a recessed escutcheon. *See id.*, col. 8, lines 16-19. Applicants respectfully request reconsideration and withdrawal of the obviousness rejections based on Tramm in view of its teaching away from the claimed invention.

Thus, (i) there is no suggestion or motivation to combine Fischer and Tramm as proposed by the Examiner; and (ii) any combination of Fischer and Tramm still fails to teach or suggest each and every feature of applicants' invention. Accordingly, a *prima facie* case cannot stand. Thus, contrary to the Examiner's reasons for asserting that claims 1-11, 14, 15, 20-54, 62 and 63 are unpatentable in view of the prior art, applicants maintain that these claims are patentable for the above reasons. Applicants submit that none of the cited references: Fischer, Tramm, Pieczykolan, and Bosio, whether taken alone or in combination, show, describe, teach or suggest applicants' invention as a whole, and therefore, claims 1, 20, 24, 25, 42, 45-48, 50 and 63 are patentable over the cited art. Claims 2-11, 14, 15 and 62 depend directly or indirectly from claim 1; claims 21-23 depend directly or indirectly from claim 20; claims 26-41 depend

directly or indirectly from claim 25; claim 49 depends from claims 45-48; claims 51-54 depend directly or indirectly from claim 50. Accordingly, claims 2-11, 14, 15, 21-23, 26-41, 49, 51-54 and 62 are patentable for at least the same reason.

Presented for the Examiner's consideration are newly added claims 64-74. Claim 64 recites an extended coverage sidewall automatic fire sprinkler comprising, *inter alia*,

means for transforming water discharged horizontally from the outlet into a spray pattern of water droplets dispersed over a generally horizontal, generally rectangularly-shaped extended coverage area of more than one hundred square feet located on one side of the sprinkler effective to control an ordinary hazard fire in the coverage area and further for delivering water to a collection area at an average density of about 0.15 gallons per minute per square feet when the sidewall fire sprinkler is paired with an identical sidewall fire sprinkler mounted approximately sixteen feet apart on a generally planar wall surface, the collection area being approximately sixteen feet between the sprinklers and sixteen feet away from one of the sprinklers, the collection area being located at either one of a distance of about thirty-six inches and a distance of approximately six feet and 7.5 inches below each of the sidewall fire sprinklers

thereby invoking 35 U.S.C. § 112, sixth paragraph. Applicants respectfully remind the Examiner that application of a prior art reference in the examination of a means-plus-function claim limitation requires that the applied prior art element perform the identical function specified in the claim. MPEP § 2183. If the prior art reference teaches identity of function, the Examiner then has the initial burden of proof for showing that the prior art structure or step is the same as or equivalent to the structure, material, or acts described in the specification which has been identified as corresponding to the claimed means or step plus function. *Id.*

According to the Examiner in the November 2, 2005 Office Action, with regard to the previously presented independent claims, “. . . [t]he functional recitation, ‘so that water is delivered to the collection area at an average density of about 0.15 gallons per minute per square feet’ merely recites the ability to so perform.” Applicants disagree with the Examiner's characterization of the claimed functional limitations with respect to the applied prior art,

however, applicants have submitted new claims that recite the claimed function in accordance with 35 U.S.C. 112, sixth paragraph in order to advance prosecution.¹

Claim 64 presents the “functional recitation” identified by the examiner and the function of “transforming water discharged horizontally” in means-plus-function format. In order for the Examiner to apply any of the cited references to claim 64, the Examiner must determine that the cited references perform the identical function specified in the claim; the Examiner has yet to do so. Instead, the Examiner asserts in the Office Action, with regard to the “functional recitation,” that “[t]he device of Fischer in view of Tramm discloses the structural limitations of applicants’ claimed invention, and therefore, it too has the capability to so perform” the claimed function. Accordingly, the Examiner’s assertions to date are insufficient in the examination of a means-plus-function claim limitation. *See* MPEP § 2183.

Applicants contend that Fischer does not show or describe any specific water density in gallons per minute per square feet to be provided over a protection area. Thus, Fischer does not show or describe the claimed function. Moreover, none of the commercialized embodiments of Fischer provide the claimed function. *See* Decl. Michael A. Fischer at page 5, para. 22. Accordingly, Fischer is not an applicable reference in the examination of claim 64. Tramm, however, does describe at col. 2, lines 6-17 “standards or guidelines” used by each listing organization for evaluating horizontal-type sprinklers which include, “established requirements for: minimum amount of water which must be collected, per unit time, in specified areas (i.e. density) under and between the sprinklers.” To the extent this description in Tramm provides the identity of the claimed functional limitation, applicants contend that Tramm does not show or describe structure that is the same or equivalent to structure described in applicants’ specification corresponding to the claimed function.

Applicants’ specification as originally filed discloses at least a deflector 40, 140 as structure corresponding the claimed means. Shown in applicants’ FIG.7 as originally filed, for example, is the canopy portion 144 of the deflector 140 extending distally from the outlet of the sprinkler. In contradistinction, Tramm shows a deflector 22 as being rearward facing, i.e. the flow containing element 48 of the deflector 22 is substantially rearward the deflector mounting

¹ *See* MPEP § 2173.05(g) (which indicates that functional terms are proper claim limitations and as such, in order for the prior art to render obvious such a claim limitation, the combination of Fischer and Tramm as hypothesized by the Examiner must teach or suggest the function without the benefit of applicants’ disclosure).

surface. *See* Tramm, col. 8, lines 13-18, FIGS. 1 and 3. Arguably, Tramm's rearward facing deflector and applicants' disclosed "forward" facing deflector are neither the same or equivalent. Because Tramm fails to show or describe structure that is the same or equivalent to applicant's structure that corresponds to the claimed means, Tramm alone, at the least, fails to satisfy the requirement of the means-plus-function claim limitation.

To the extent that the Examiner believes that the hypothesized combination of Fischer in view of Tramm provides the claimed function and further teaches or suggests structure that is the same or equivalent to the structure described in applicants' specification corresponding to the claimed means, this argument cannot stand. As discussed above, there is no motivation to combine these references, and the references, singularly or in combination, fail to teach or suggest the claimed invention as a whole. Accordingly, applicants respectfully submit that claim 64 is patentable, and because of their dependencies from claim 64, claims 65-74 are also patentable. Furthermore, claims 65-74 have been added to recite structural features that are encompassed by the corresponding structure and equivalents thereof provided by the means-plus-function claim limitation; that is: (1) a forward facing canopy, i.e. away from the outlet and towards a free end, as recited in claims 65, 66, 68, 69, 70, 74; (2) a generally flat canopy surface for deflector, as recited in claims 67, 68, 71; and (3) a deflector that has only a single flow opening, as recited in claims 67, 72, 73. Accordingly, the combination of Fischer and Tramm fails to teach or suggest applicants' invention claimed in claims 65-74 as a whole.

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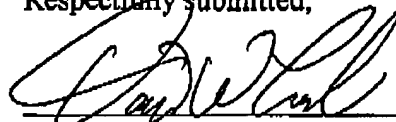
CONCLUSION

In view of the foregoing amendments and remarks, applicants respectfully requests reconsideration of this application and the prompt allowance of at least claims 1-11, 14, 15, 20-54, and 62-74.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact the undersigned to expedite prosecution of the application.

The Commissioner is hereby authorized by this paper to charge any fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 50-3840. **This paragraph is intended to be a CONSTRUCTIVE PETITION FOR EXTENSION OF TIME in accordance with 37 C.F.R. § 1.136(a)(3).**

Respectfully submitted,



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